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Jason, Jr. et al.
Appl. No. 09/605,361*Amendments to the Claims*

13. (Currently Amended) A communication system, comprising:
a communication network, including a plurality of nodes;
a server connected to a first one of the nodes;
a client processor;

a storage medium within the client processor to store a security system for connecting the client processor to the communication network for communication with the server, wherein the security system includes a transmission control protocol to control communication between the client processor and the communication network;

a security classifier to couple the transmission control protocol to the communication network, the security classifier to determine a security classification for the client processor;

a security association negotiator responsive to the client processor opening a socket at a node of the communication network, to correlate the socket with a security association based on the determined security classification; and

a network interceptor to coupling couple the client processor with the transmission control protocol, ~~and responsive to the socket being closed for deleting the security association~~, wherein the network interceptor responds to the socket being closed by determining whether any other socket is correlated with the security association, and if it is determined that no other socket is correlated with the security association, deleting the security association.

Cancel claims 14 and 15.

16. (Currently Amended) An article, comprising a storage medium having instructions stored thereon, the instructions when executed, provide for controlling a security association of a network communication between a local application having a socket and a remote application by monitoring a completion status of the communication; upon completion of the communication, closing the socket; and in response to the closing of the socket, ~~terminating a correlation of the security association with the socket, wherein the correlation of the security association with the socket is terminated by~~ determining whether any other socket is correlated with the security association, and if it is determined that no other socket is correlated with the security association, deleting the security association.

Cancel claims 17 and 18.

19. (Previously Amended) An article as claimed in claim 16, wherein the local application operates through a driver, and the correlation of the security association with the socket includes notifying the driver that the security association is no longer needed, to cause the driver to terminate the correlation.

20. (Original) The communication system of claim 13, wherein the network interceptor monitors all sockets protected by the security association.

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21. (Original) The communication system of claim 13, wherein the network interceptor monitors when the socket is closed.

22. (Currently Amended) A communication method comprising:
monitoring a completion status of a network communication between a local application and a remote application, wherein the local application utilizes a socket;
upon completion of the network communication, closing the socket; and
in response to the closing of the socket, ~~terminating a correlation of the security association with the socket, wherein terminating the correlation of the security association with the socket comprises~~ determining whether any other socket is correlated with the security association, and if it is determined that no other socket is correlated with the security association, deleting the security association.

23. (Original) The communication method of claim 22, wherein the local application operates through a driver, and terminating the correlation of the security association with the socket includes notifying the driver that the security association is no longer needed to cause the driver to terminate the correlation.

24. (Currently Amended) A communication method comprising:
creating a socket for a local application to enable the local application to communicate with a remote application on a communication network;
correlating the socket with a security association;
performing the communication through the socket and the communication network;
upon completion of the communication, closing the socket; and
in response to the closing of the socket, ~~terminating the correlation of the security association with the socket, wherein terminating the correlation of the security association with the socket comprises~~ determining whether any other socket is correlated with the security association, and if it is determined that no other socket is correlated with the security association, deleting the security association.

25. (Original) The communication method of claim 24, wherein correlating the socket with the security association comprises:

determining whether there is an active security association that would cover traffic for the socket;

if it is determined that there is an active security association that would cover traffic for the socket, then correlating the socket with the active security association;

if it is determined that there is not an active security association that would cover traffic for the socket, then:

determining a new security association for traffic for the socket;

giving the new security association to a network security driver;

receiving a handle for the new security association from the network security driver; and

correlating the socket with the new security association of the handle.

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26. (Original) The communication method of claim 24, wherein the local application operates through a driver, and terminating the correlation of the security association with the socket includes notifying the driver that the security association is no longer needed to cause the driver to terminate the correlation.

27. (Currently) A security system comprising:

a transmission control protocol for controlling communication between a client application and a communication network;

a security classifier for coupling the transmission control protocol to the communication network, the security classifier to determine a security classification for the client application;

a security association negotiator responsive to the client application opening a socket at a node of the communication network, to correlate the socket with a security association based on the determined security classification; and

a network interceptor coupling the client application with the transmission control protocol, and responsive to the socket being closed ~~to terminate the correlation of the socket with the security association, wherein the network interceptor responds to the socket being closed~~ by determining whether any other socket is correlated with the security association, and if it is determined that no other socket is correlated with the security association, to delete the security association.

28. (Original) The security system of claim 27, wherein the network interceptor monitors when the client application closes the socket.